

Fig. 1

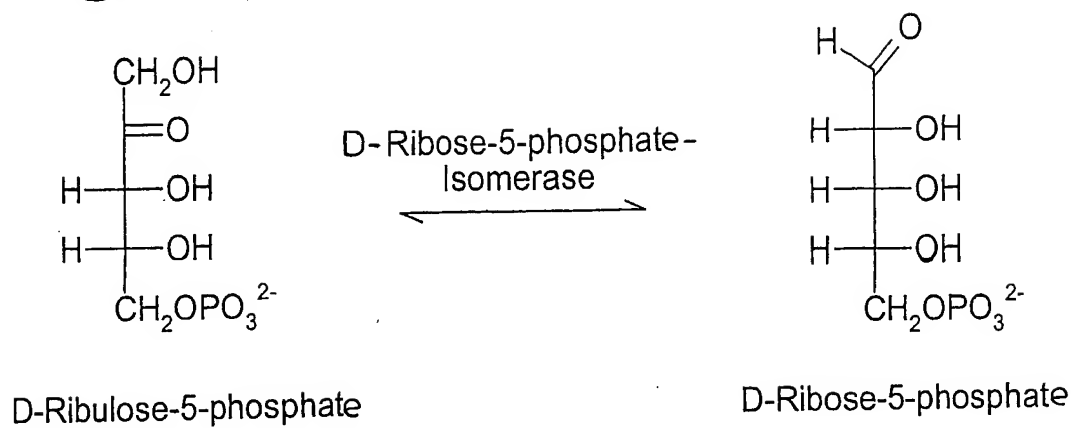


Fig. 2

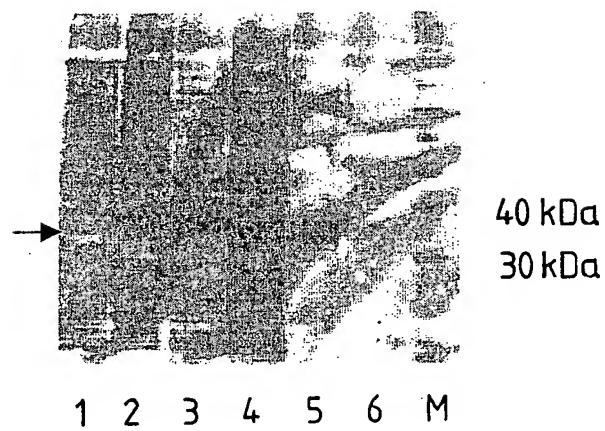


Fig. 3

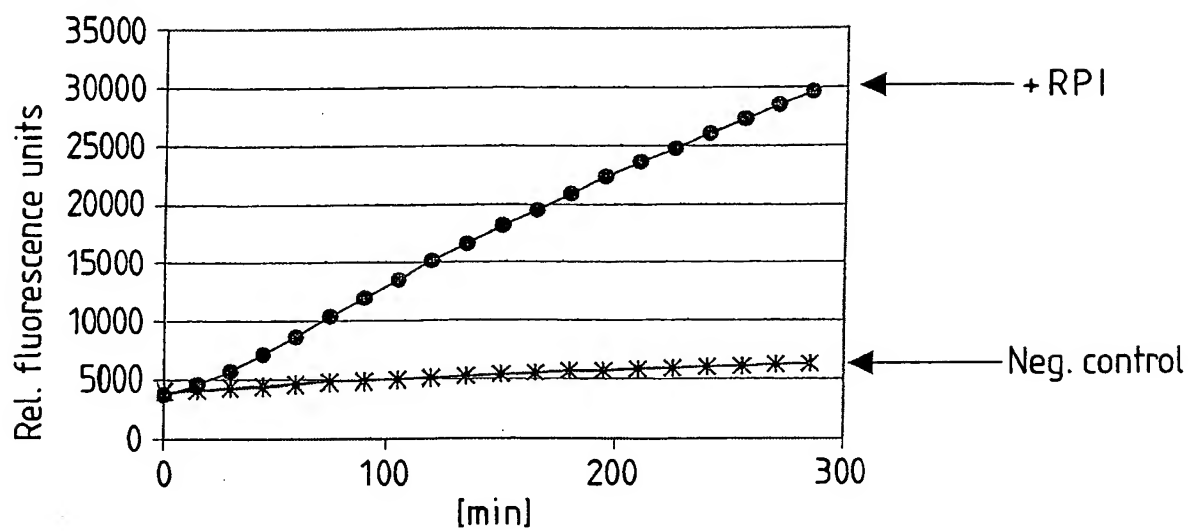


Fig. 4

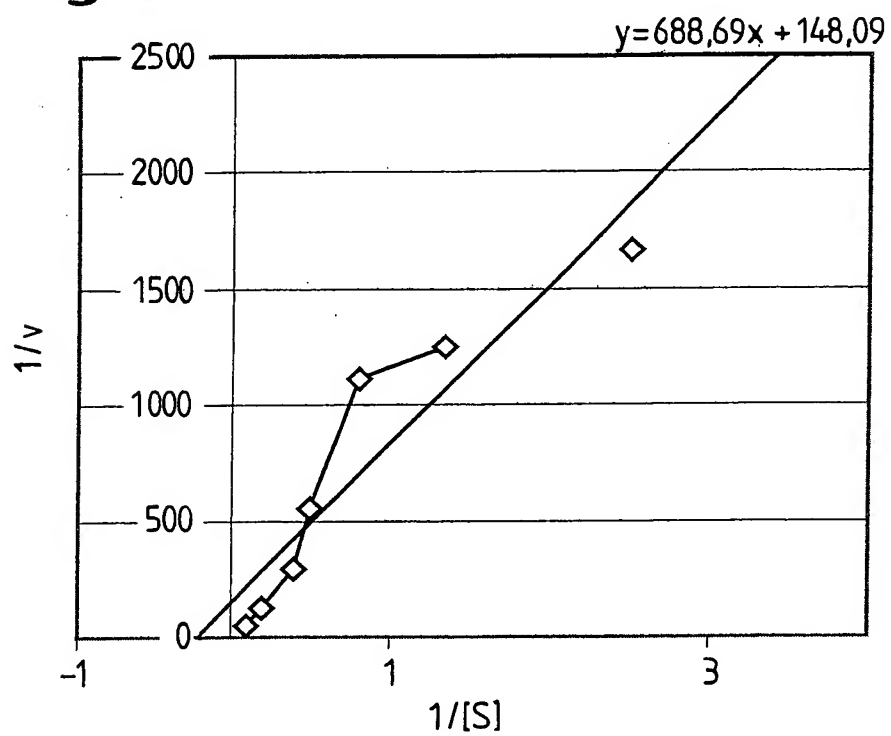


Fig. 5

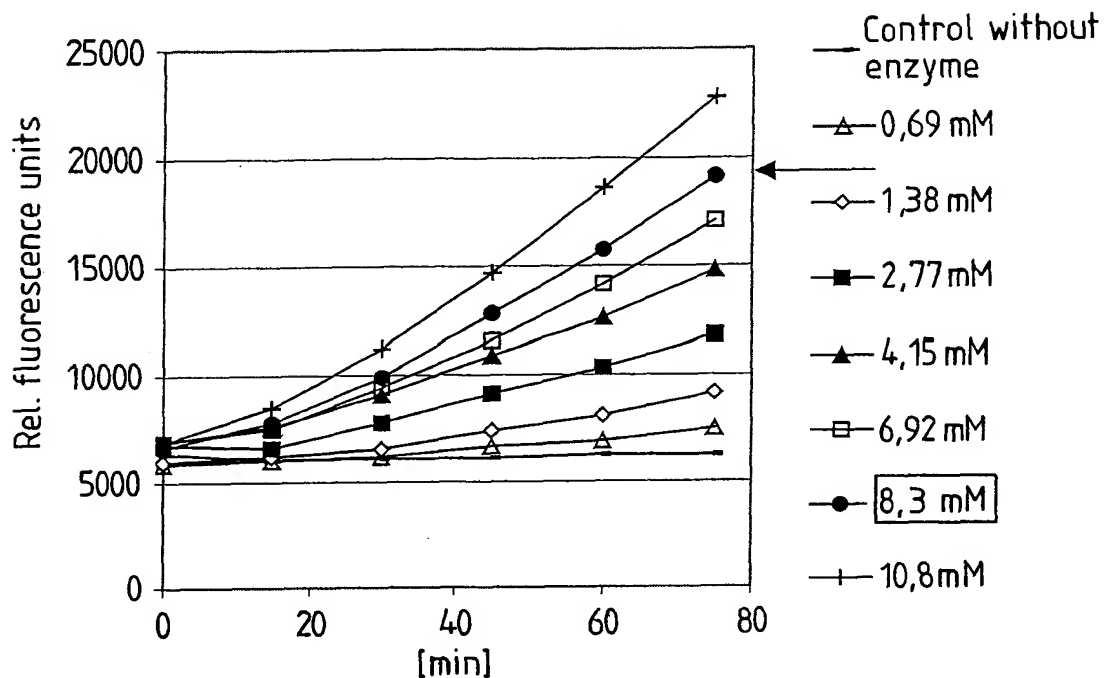


Fig. 6

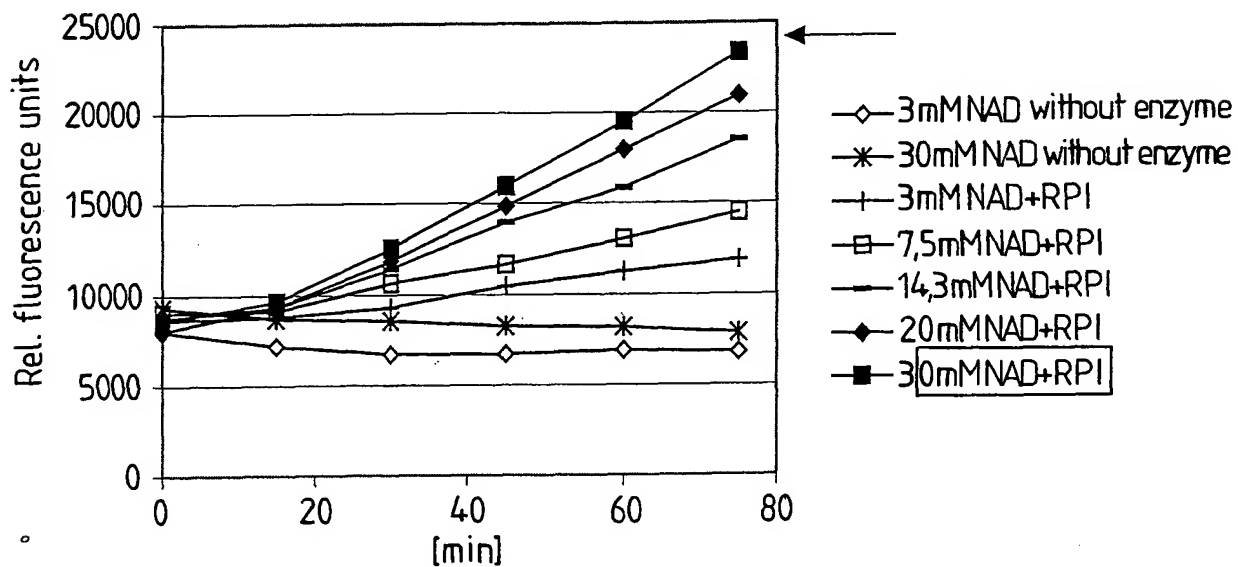


Fig. 7

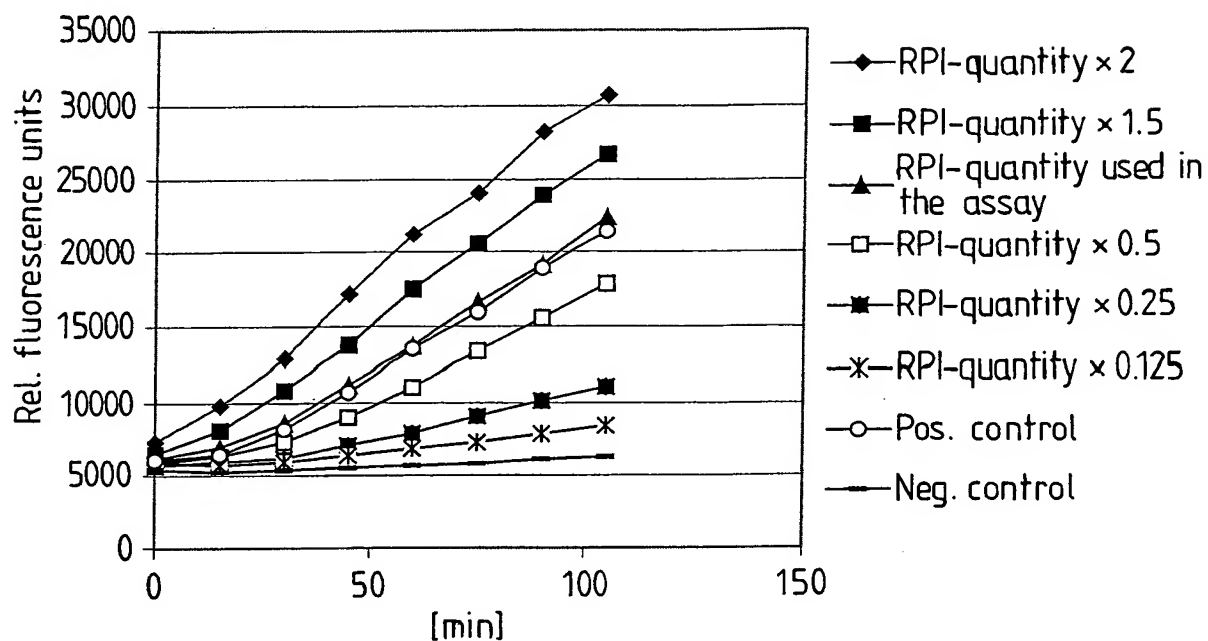


Fig. 8

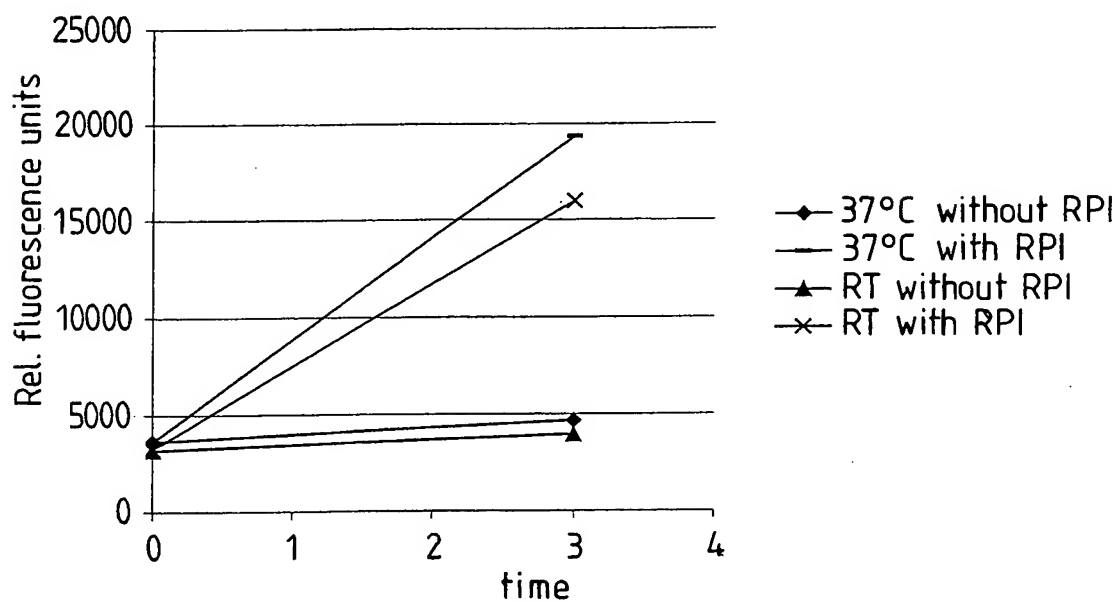


Fig. 9

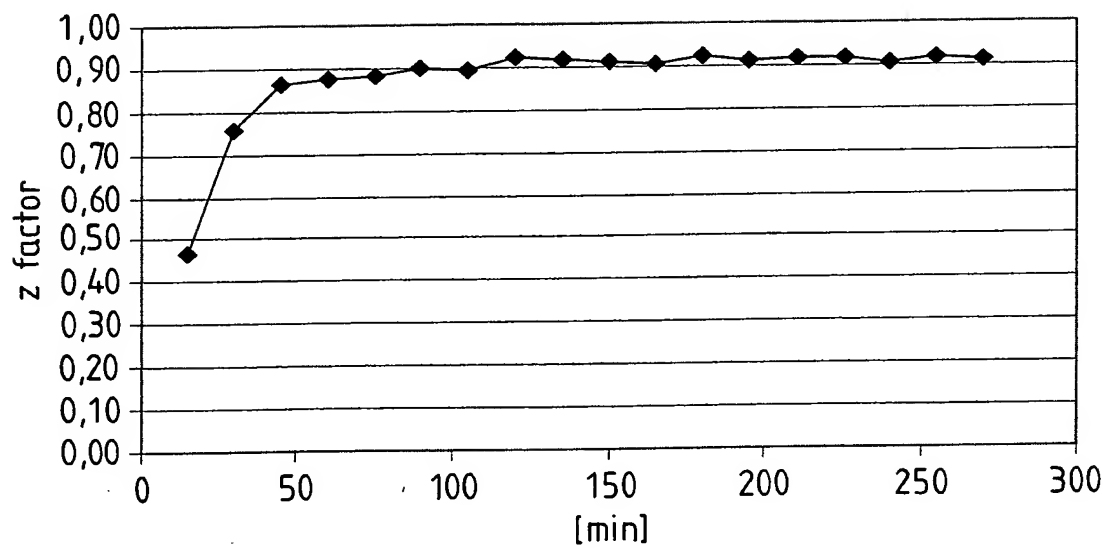


Fig. 10

U. maydis	.....MQSRL	LSLVSSHLVS	KRCFIARSAA	LAPLLLHPQR
LRLTCPRSFS				
S_pombe_144_12	.....	.....	.....	.....
.....				
S_c_RKI1	.....	.....	.....	.....
.....				
mouse_rpi	.....	.....	.....	.....
.....				
drosophila_RPI	MTYGHVACLL	QVFVENEINL	SPDQSCMNCC	GGCHDTRSSG
CYKAEFEFCG				
C_elegans_rpi	.....	.....	.....	.....
.....				
a_thaliana_hyp.RPI	.....	.....	.....	.....
.....				
E.coli_RPIA	.....	.....	.....	.....
.....				

U. maydis	SQQSGPRKMA	SSNATNSTSA	ASAANTNSSA	FKSAELAALS
GVDAAKRAAA				
S_pombe_144_12	.....	.....	MDSAEEKLD.	.....LS
PIELAKRLAC				
S_c_RKI1	.....	.....	MAAGVPKIDA	LE....SLGN
PLEDAKRAAA				
mouse_rpi	.....	.....	.....	.....MS
KAEAKKLAS				
drosophila_RPI	QQAACKGRLY	KCNTIESEN	LSGAAATLHT	QIR..MMDDI
ALDAAKKTAA				
C_elegans_rpi	.....	.....	.....MVTS	TGP..EAELA
PIEAKRAAA				
a_thaliana_hyp.RPI	.....MAL	AYDPLFITS	D	KSLSAFDVAS
TQDELKRIAA				
E.coli_RPIA	.....	.....	.....	.....M
TQDELKAVG				

U. maydis	YAAVDNHVK.	PQHEITGIGS	GSTVPYVVER	IAQ..QGPVAV
N...AKRWFV				

S_pombe_144_12	HMAVDENYP.	ENPKVIGIGS	GSTVVYVVER	L...LTKPG.
...VDSVVF				
S_c_RKI1	YRAVDENLKF	DDHKIIGIGS	GSTVVYVAER	IGQYLHDPKF
YEVASKFICI				
mouse_rpi	HTAVENHVKN	N..QVLIGIGS	GSTIVHAVQR	IAERVKQEN.
....LDLICI				
drosophila_RPI	RTAVDQWVTE	DT.KILIGIGS	GSTVVYAVQR	IAERVWKEGE
...LTDLICV				
C_elegans_rpi	FACGEKYVQS	G..CRLIGIGS	GSTVKYLVEY	LKQGFQNGS.
...LKDIICV				
a_thaliana_hyp.RPI	YKAVEFVES.	G..MVLIGIGS	GSTAKHAVDR	IGELLRQGK.
...LENIVGI				
E.coli_RPIA	WAALQYVQP.	G..TIVIGIGS	GSTAAHFIDA	LG...TMKG.
....QIEGAV				

U. maydis	PTGFQSR	ELI	INAGLRLGDV	DSFPSIDVTI	DGADEV	DNAL
NCKKGGGACH						
S_pombe_144_12	PTGFQSK	QLI	VNGLRLGDP	DCYPNV	DVSF	DGADEV
QCKKGGGACL						DDNL
S_c_RKI1	PTGFQSR	NLI	LDNKLQLGSI	EQYPRID	IAF	DGADEV
QLKKGGAOL						DENL
mouse_rpi	PTSEQAR	QLI	LQYGLTSLDL	DQHPEID	LAI	DGADEV
NLKKGGAOL						DAEL
drosophila_RPI	PSSYQAR	HLI	LDYNLNLGDL	DRNPNI	DVAI	DGADEV
VLKKGGAOL						DRHM
C_elegans_rpi	PTSF	LTQWL	IESGLPVSDL	DSHPEL	DVCI	DGADEV
TKKKGGAOL						DGQF
a_thaliana_hyp.RPI	PTSKKT	QEQ	LSLGIPLSDL	DAHVID	LSI	DGADEV
NLVKGRGGS						DPFL
E.coli_RPIA	SSSDASTEKL		KSLGIHVFDL	NEVDSLGIYV		DGADEV
QMKKGGAAL						INGHM

U. maydis	LREKVLAEAA	NEFVWVADYR	KNG.SQLG	TK	WLQGV	PIEVA
PFAY...AKV						
S_pombe_144_12	FOEKLIAFLA	KRLIVVADSR	KNS.HVLGEY		WKKGV	PIEVM
PMAY...ASI						

S_c RKI1

PSSY...VRV

mouse_rpi

PMAY...VPV

drosophila_RPI

PMAY...VPI

C_elegans_rpi

PLAA...QPL

a_thaliana_hyp.RPI

PFCWKFTAEC

E.coli_RPIA

PMAR...SAV

U. maydis

E.AQMKDPSD

S_pombe_144_12

..GLIKNPKE

S_c RKI1

..GEISDPRK

mouse_rpi

..DRVHKWSE

drosophila_RPI

A.NREYDWDE

C_elegans_rpi

KNVSGRDWFA

a_thaliana_hyp.RPI

..EDMGDLGA

E.coli_RPIA

..MEILDPIA

U. maydis

G.....D

S_pombe_144_12

GEKHIIPAPV

S_c RKI1

FOEKLVTSA KTFIVWADSR KKSPKHLGKN WRQGVPIEIV

TOEIVAGYA SRFIVLADFR KDS.KNIGDR WHKCTPLEVI

LOEKVVASCA KHFIWADYT KNS.IRIGEQ WCRGVPIEVA

AOEKIVQTAA KNEYVLADYL KDS.KHLGDR YPN.VPIEVL

LREKMIEGAS KKEVWIVDDS KMV.KHIGGS KLA.LPVEIV

TREKIIASVA EKEICIDAS KQV.DILG... .KFPLEVEVI

LQNLKK.MGS DKAVLRMG.K AKAGPVVTDN GNECIDAPFP

LPQLVE.LGA IEPKLRMGAP GKAGPVVTDN GNEIIDAHF.

KNDLLEQLHA EKVDIRQGS AKAGPVVTDN NNFIIDADF.

SRAVAQKFGG E.VELRMA.V NKAGPVVTDN GNEILDWKF.

KLHIEALFGG E.ASLRMA.K VKAGPIVTDN GNEILDWKF

LRSIPRAEGG S.COLRQA.V KRCGPVTDN GNEIIDWQFE

LRSLLEGYGC E.ANLRLG... EKGFVTDN GNYIVDMHVE

ARQLVK.LGG R.PEYRQG... ..VVTDN GNVILDVHG.

LLKRIKLLTG VLEVGLFCN. ICKSAVFGND DGTITIKTAA

LFKIKLLVG VLEVGLFCD. MISAVYFGSK DGSVTVKKAS

LHREIKLLVG VVETGLEID. NASKAVFGNS DGSVEVTEK.

mouse_rpi	VNTAIKMTPG	VWDTGLEIN.	MAERVYEGMQ	DGSVNVREKP
F.....				
drosophila_RPI	VNRAITLIPG	VLETGLEVN.	MAHKCMYGM	NGSVKVQNK.
.....				
C_elegans_rpi	IQORLANTPG	IVETGLEFIG.	CVDVFFAYS	DGSVKEIVNS
KKH.....				
a_thaliana_hyp.RPI	VSDAILRLPG	VVEHGMELD.	MASTVIIAGE	LG.VKIKNKH
.....				
E.coli_RPIA	MENAINAIPG	VWTVGLEANR	GADVALIGTP	DG.VKTIVK.
.....				

U. maydis	VQEGVHFDVS	KAPATA....
S_pombe_144_12	TAAANEVDAK	VAETNAKPLN
S_c_RKI1	.....	.....
mouse_rpi	.....	.....
drosophila_RPI	.....	.....
C_elegans_rpi	.....	.....
a_thaliana_hyp.RPI	.....	.....
E.coli_RPIA	.....	.....

Fig. 11

U_m_RPI1	MQSRLLSLVS	SHLVSKRCFI	ARSAALAPLL	LHPQRLRLTC
PRSFSSQQSG				
SPAC144_12	.....	.....	.....	.....
.....				
SC_RKI1	.....	.....	.....	.....
.....				
CRYNE_001022	.....	.....	.....	.....
.....				
CANAL_Contig6-2195	.....	.....	.....	.....
.....				
embl.CNS06G7H	.....	.....	.....	.....
.....				
NEUCR_contig	.....	.....	.....	.....
.....				
embl.CNS06MQK	.....	.....	.....	.....
.....				
embl.CNS06EST	.....	.....	.....	.....
.....				
embl.CNS0766C	.....	.....	.....	.....
.....				
embl.CNS06ZNB	.....	.....	.....	.....
.....				
embl.CNS06ZLP	.....	.....	.....	.....
.....				
embl.KLAJ9603	.....	.....	.....	.....
.....				
U_m_RPI1	PRKMASSNAT	NSTSAASAAN	TNSSAFKSAE	LAALSGVEAA
KRAAAYAAVD				
SPAC144_12	.....	.....	....MDSA EK	KLDLSPIELA
KRLACHMAVD				
SC_RKI1	.....	.....M	AAGVPKIDAL	ESLGNPLEDA
KRAAAYRAVD				
CRYNE_001022	.....	.....	.....	.....
.....				
CANAL_Contig6-2195	.....	.....	.....	MSSTSKVESA
KKLAAYKAVD				
embl.CNS06G7H	.....	.....	.....	.....

.....
embl.KLAJ9603
.....

U m RPI1

IKGGGACHLR

SPAC144_12

IKGGGACLFQ

SC RKI1

IKGGGACLFQ

CRYNE_001022

IKGGGACQLR

CANAL Contig6-2195

IKGGGACLFQ

embl.CNS06G7H

IKGGGACLFQ

NEUCR contig

IKGGGACLLQ

embl.CNS06MQK

IKGGGACLFQ

embl.CNS06EST

IKGGGGOLFQ

embl.CNS0766C

IKGG.....Q

embl.CNS06ZNB

IKGGGACLFQ

embl.CNS06ZLP

IKGXGAXXLQ

embl.KLAJ9603

.....VQ

.....
SRELINAGL RLGDV.DSFP ..SIDVTIDG ADEVDNAINC

SKQLIVNNGI RLCDP.DCYP ..NVDVSFDG ADEVDDNIQC

SRNLILDNKL QLGSI.EQYP ..RIDIAFDG ADEVDENIQL

SKELIVKAGL TLGDV.DQYA ..RIDVTIDG ADEVDDNEINS

SKQLIIDNGL RLGTI.EQYP ..RIDIAFDG ADEVDPQINL

SRNLILDNKL QLGSI.EQYP ..RIDIAFDG ADEVDENIQL

SRDLTQAAGF RLGYSDDLSP GHALDVCFDG ADEVDPAINL

.....I.DQYP ..NVDIAFDG ADEVDBANIQL

SKQLIMDNGI TYAIL.EQHP ..RIDIAFDG ADEIDCNIDL

.RQLIIDNWX RLGST.EEYP ..RIDIAFDG ADEIDSNLGL

.....YH ..RIDIAFDG ADEVDENIQL

.....EQYP ..RIDIAFDG ADEVDENIQL

.....
U m RPI1 EKVLAEAAANE FVWVADYRKN G.SQLGT...

SPAC144_12

EKLIAFLAKR LVIIVADSRKN S.HVLGEY...

SC RKI1

EKELVSTSAKT FVWVADSRKK SPKHLGKN...

CRYNE_001022

EKVLAEAADT WLIIVADYRKN S.EVLGTSVR AFLSCLEDQT

NAMSLFSLYL

CANAL_Contig6-2195

EKLVAASAKK FVWVADYRKK SDK.LGQL..

.....

embl.CNS06G7H

EKLIVSTSAKT FIVVADSRKK SPKHLGKN..

.....

NEUCR_contig

EKLIVATAARK FVCVADSRKI S.NHLGTQ..

.....

embl.CNS06MQK

EKLIVSTSTDK FIVVADSRKK SPQYLGTS..

.....

embl.CNS06EST

EKLIVSTSAKI FVWVADTSKK SPRRLGSH..

.....

embl.CNS0766C

EKLIVAACSKQ LVVVADYRKD T.GVLGKG..

.....

embl.CNS06ZNB

EKLIVSTSAKK FIVVADSRKR SPKHLGKN..

.....

embl.CNS06ZLP

DKLIVXTXAKK FIVVADSRKR XXXHLGKN..

.....

embl.KLAJ9603

EKLIVSTSAKK FIVVADSRKK SPKYLGTN..

.....

U_m_RPI1

.....,KVLQG VPTEVAPFAY AKVLQN....

.....

SPAC144_12

.....WKKG VPTEVMPFAY ASILPQ....

.....

SC_RKI1

.....WRQG VPTEIVPSSY VRVKND....

.....

CRYNE_001022

FIRFPMTPIE LIASPKWTKG IPTEVVPFAY AKVLTN....

.....

CANAL_Contig6-2195

.....WRQG VPTEIVPNSY SKIIQE....

.....

embl.CNS06G7H

.....WRQG VPTEIVPSAY VRVKND....

.....

NEUCR_contig

.....WKKG IPTEVFPFAY PQVLGE....

.....

embl.CNS06MQK

.....WKKG VPTEIVPSSY VRVSKD....

.....

embl.CNS06EST

.....WVQG VPTEV PAAY NRVQDD....

.....

embl.CNS0766C

.....WRKG VPTEVPAAY TKVSLD....

```

.....
embl.CNS06ZNB      .....WKRG VPLEVPSSV VHVLT.....
.....
embl.CNS06ZLP      .....WKRG VPLEVPSSV DRAVAR.....
KRGFWLRITA
embl.KLAJ9603      .....WKKG VPLEVPSSV VRVLS.....
.....

```

```

U_m_RPI1           .....
.....
SPAC144_12         .....
.....
SC_RKI1            .....
.....
CRYNE_001022       .....
.....
CANAL_Contig6-2195 .....
.....
embl.CNS06G7H      .....
.....
NEUCR_contig       .....
.....
embl.CNS06MQK       .....
.....
embl.CNS06EST       .....
.....
embl.CNS0766C       .....
.....
embl.CNS06ZNB       .....
.....
embl.CNS06ZLP       TSSLTLTFGE ..IADPRKLH QDIKMLVGVV ETGLFIDNAE
KAYFGSPDGS
embl.KLAJ9603      .....
.....

```

```

U_m_RPI1           .....L KKMGS..... ..DKAVLRM
GKAKAG..PV
SPAC144_12         .....L VELGAI..... ..EPKLRMG

```

APGKAG..PV			
SC RKI1	.....LL	EQLHAE....	...KVDIRQG
CSAKAG..PV			
CRYNE 001022	.....L	AHMGSPHVLP	NGQPGLSLRM
GKMKAG..PV			
CANAL Contig6-2195	.....LS	KKLGA....	...NVDLRQG
GKAKAG..PI			
embl.CNS06G7H	.....LL	EQLHAD....	...KVDIRQG
GSAGAG..PV			
NEUCR contig	.....L	ERLGRL....	...SAQVRSG
LPGKAG..AC			
embl.CNS06MQK	.....LR	EKLGSR....	...KAEVRQG
CSAKAG..PV			
embl.CNS06EST	.....LL	NLLGA....	...TATLRQG
GKVKMG..PV			
embl.CNS0766C	.....L	VKLGG....	...KPVVRSG
LPAKAG..PV			
embl.CNS06ZNB	.....LK	DRLHCK....	...SAIVRQG
CSAKGPGPV			
embl.CNS06ZLP	VELQLKCCPV	PMWHVLTALK	DRLHCK....
CSAKAG..PV			
embl.KLAJ9603	.....LK	NKLNCK....	...SAMVRQG
.....			

U m RPI1	VTDNGNECID	APPEAQMKD	PS.....	....DLKR
IKLITGVLEV				
SPAC144 12	VTDNGNEIID	AHFGLIK..N	PKE.....	....LFAK
IKLIVGVWEV				
SC RKI1	VTDNNEIID	ADGE..ISD	PRK.....	....LHRE
IKLIVGVWET				
CRYNE 001022	VSDNGNEIID	APFAELMRQ	PEE.....	....VELHK
IKMITGVWEV				
CANAL Contig6-2195	ITDNNNELLD	ADGEIEIDN	VGK.....	....LHEQ
IKLIVGVWET				
embl.CNS06G7H	VTDNSNEIID	ADGE..IKD	PRT.....	....LHRD
IKLIVGVWET				
NEUCR contig	VTDNGLRIVD	AVEKPLLTEL	PEGKQEGEEG	VWTVDGLARR
LTELPGVAEH				
embl.CNS06MQK	VTDNSNEIID	ADGEIQ..D	PKK.....	....LHQD

IKMLVGVET
embl.CNS06EST
IKALVGVET
embl.CNS0766C
IKALVGVET
embl.CNS06ZNB
IKMLVGVET
embl.CNS06ZLP
.....
embl.KLAJ9603
.....

VTDNNNHILD THFGD..IDD PKK.....LHDN
VTDNNGFIID CDFGEIPPAQ VAE.....LNAK
VTDNCNEIID ADFGE..IAD XRK.....LHQD
VTDNCNEIID ADF.....
.....
.....

U_m_RPI1
QEGVHFDVSK
SPAC144_12
HIIPAPVTAA
SC_RKI1
.....
CRYNE_001022
.....
CANAL_Contig6-2195
.....
embl.CNS06G7H
.....
NEUCR_contig
.....
embl.CNS06MQK
.....
embl.CNS06EST
.....
embl.CNS0766C
.....
embl.CNS06ZNB
.....
embl.CNS06ZLP
.....
embl.KLAJ9603
.....

GLFCNI....CK SAYFCNDGCT ITIKTAAGDV
GLFCDM....IS AVYFGSKDGS VTVKKASGEK
GLFIDN....AS KAYFGNSDGS VEVTEK....
GLFCGM....AK AAYFCNE...
GLFTNM....AN KAYFGEDGS VSV.....
GLFIDN....AS KAYFGNSDGT
GLFYGKSGLE VESGGAQKPV AAYFGMEDGS VMVQT....
GLFIDN....AC KAYFGNADGT VEV.....
GLFIGN....AA KAYLGSPDGD VLI.....
GLFVSL....AS KAYIGNADGT ITKKT....
GLFIDN....AE KAYFGSPDGS VELQ.....
.....
.....

U_m_RPI1	APATA.....
SPAC144_12	ANEVDAKVAE TNAKPLN
SC_RKI1	.....
CRYNE_001022	.....
CANAL_Contig6-2195	.....
embl.CNS06G7H	.....
NEUCR_contig	.....
embl.CNS06MQK	.....
embl.CNS06EST	.....
embl.CNS0766C	.....
embl.CNS06ZNB	.....
embl.CNS06ZLP	.....
embl.KLAJ9603	.....

Fig. 12

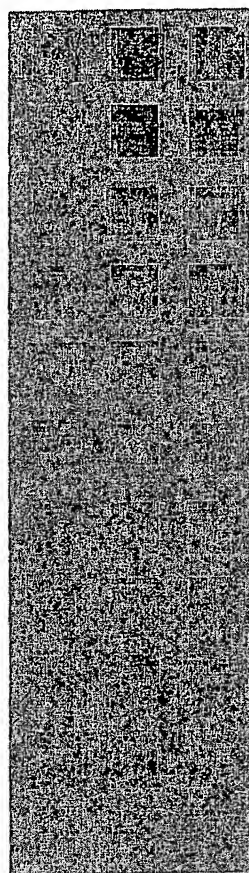


Fig. 13

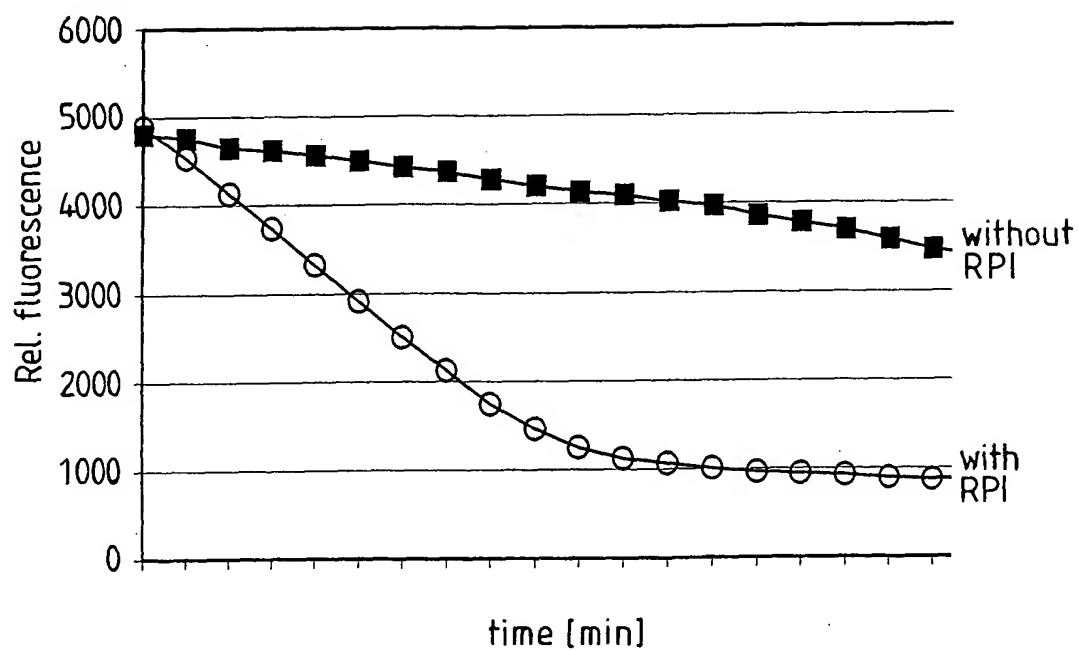


Fig. 14

